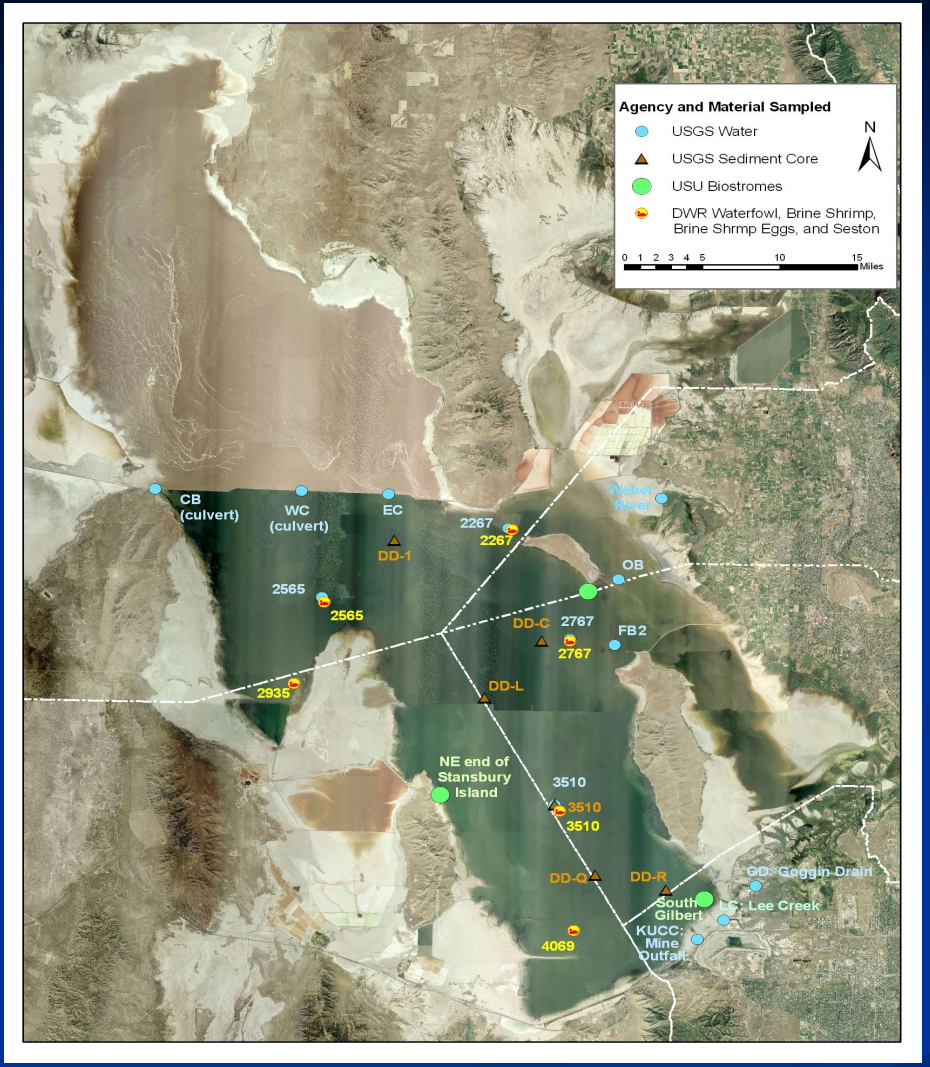
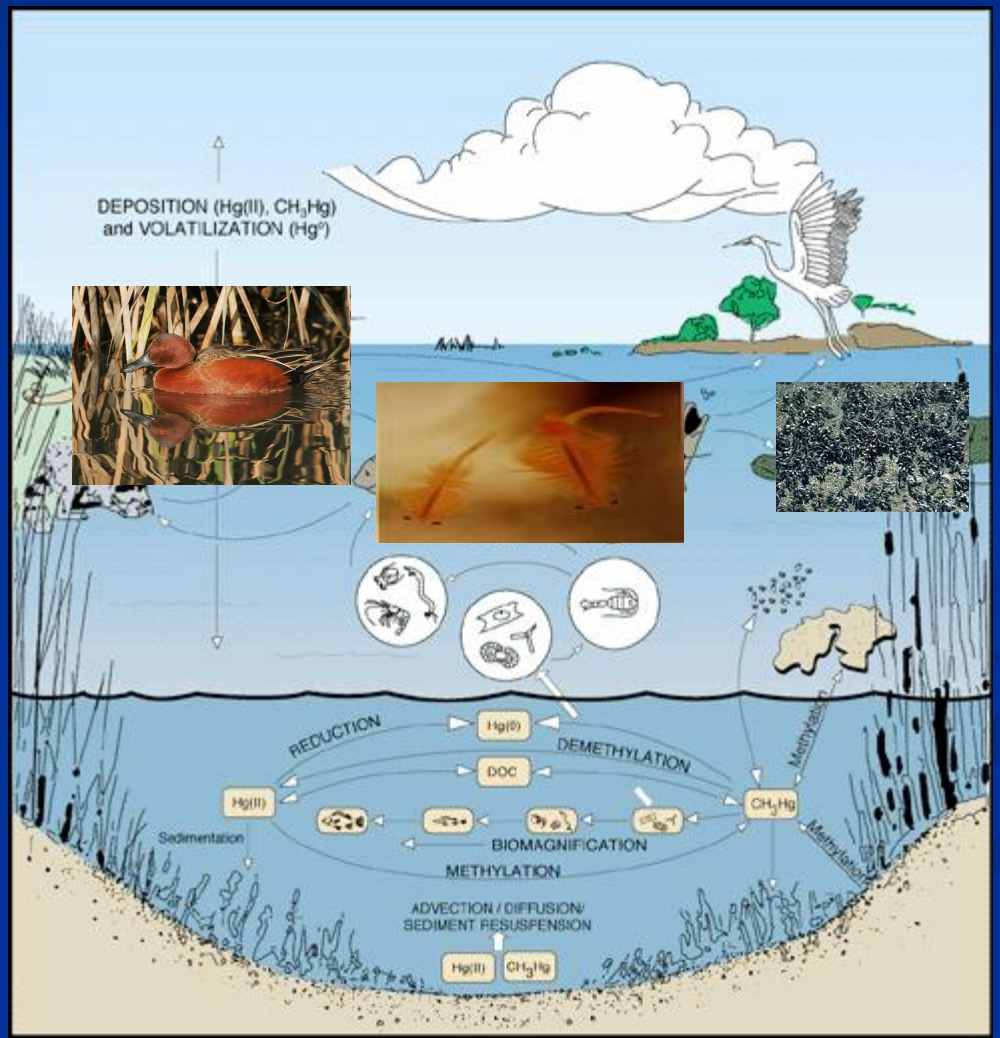
Mercury (Hg) in the Great Salt Lake (GSL) Ecosystem



Jodi Gardberg
Utah DEQ, Division of Water Quality

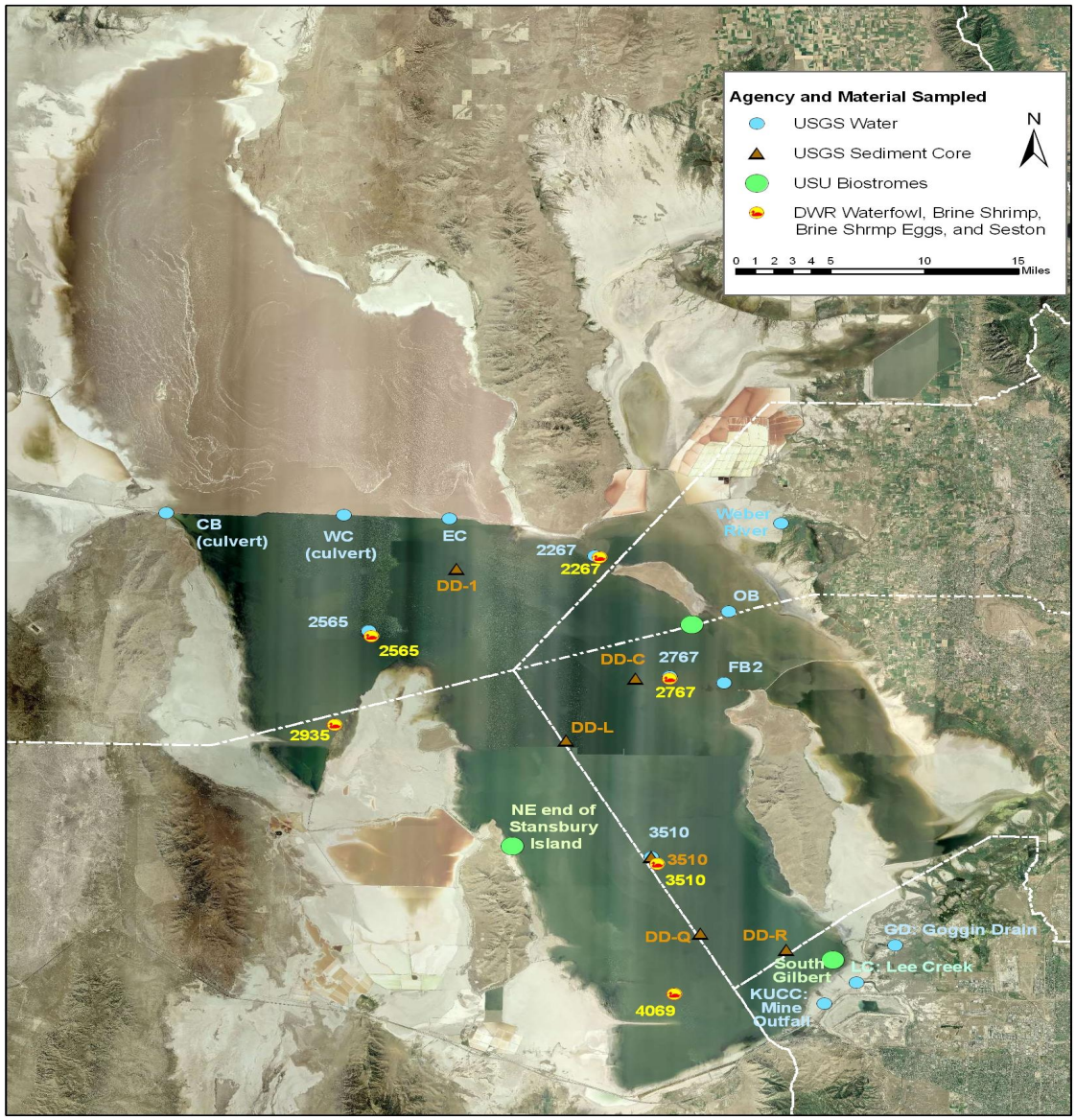
Assessment of Hg in the GSL Ecosystem

Assess Hg concentrations in the inflow, sediment, water column, avian tissues and food-chain biota



Mercury in the Water Column and Sediment

- Hg in the inflow and water column (50 samples)
  - Dave Naftz, US Geological Survey
- Hg in the sediment (50 samples)
  - Dave Naftz, US Geological Survey



Mercury in the Avian Species

John Neil, Great Salt Lake Ecosystems Project, Division of Wildlife Resources
Chris Cline, US Fish and Wildlife Service

- Hg in Cinnamon Teal
  - Eggs – 30 samples
  - Juveniles – 21 samples
  - Adults – 29 samples
- Hg in Northern Shovelers
  - Adults – 48 samples
- Hg in Common Goldeneye
  - Adults – 15 samples

Mercury in the Avian Diet

John Luft, Great Salt Lake Ecosystems Project, Division of Wildlife Resources

- Hg in Brine Shrimp and Brine Shrimp Cysts
  - 115 samples of Brine Shrimp (from June to December)
  - 25 samples of Brine Cysts (from June to November)

Mercury in the Avian Diet

Wayne Wurtsbaugh and Caleb Izdepski, Utah State University

- Hg in Brine Fly
  - Larve – 32 samples
  - Pupae – 15 samples
  - Adult – 10 samples
- Hg in Water above the Stromatolite
  - 54 samples
- Hg in the Periphyton
  - 69 samples
- Hg in the Seston
  - 28 samples

Mercury in the GSL Wetlands and Farmington Bay

- Hg in Plants and Macroinvertebrates (15 samples)
  - Theron Miller, Division of Water Quality
- Hg in the Water Column (117 samples) and Sediments (29 samples)
  - Dave Naftz, US Geological Survey